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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/037,530

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W. Kyle Unice

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05/03/2006

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EXAMINER

MITCHELL, JASON D

ART UNIT

PAPER NUMBER

2193

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/037,530	UNICE, W. KYLE	
	Examiner	Art Unit	
	Jason Mitchell	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11-15 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-15 and 17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This action is in response to remarks filed on 2/8/06.

At applicant's request claims 1-2, 4-9, 11-15, 17-20 have been amended, claims 10, 16 and 21-25 have been canceled. Claims 1-9, 11-15, and 17-20 are pending in this application.

**Applicant's arguments with respect to claims 1-9, 11-15, 17-20 have been considered but are moot in view of the new ground(s) of rejection.**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-9, 11-15 and 17-20 are rejected under 35 U.S.C. 102(b) as being anticipated by “Linux Device Drivers” by Rubini (Rubini).**

**Regarding Claims 1 and 11:** Rubini discloses distributing a device driver to execute functionality under command from a kernel, wherein the device driver includes code defining functionality associated with the device driver (1.3. Classes of Devices and Modules ‘usually each module ... implements only one driver’) and excludes a header (2.2.1 Version Dependency ‘kernels define the symbol for you ... that’s why *hello.c* above didn’t declare it’), wherein the header includes unique symbols associated with

the kernel and version identification data of the kernel (2.2.1 Version Dependency 'kernels define the symbol for you'); and distributing the device driver (1.6 License Terms 'If you write a module ... you are allowed to distribute it in binary form') which, when run on a computer, dynamically creates the header information for the device driver by obtaining the version identification data and the associated unique symbols from the kernel (2.2 Compiling and Loading 'The following *Makefile* ... builds a module').

**Regarding Claims 2 and 12:** The rejections of claims 1 and 11 are incorporated respectively; further Rubini discloses the kernel is part of an operating system (Chapter 1. An Introduction to the Linux Kernel), wherein the kernel is identifiable by the version identification data (1.5. Version Numbering 'version numbering scheme').

**Regarding Claims 3 and 13:** The rejections of claims 2 and 12 are incorporated respectively; further Rubini discloses the operating system is a Linux operating system (Title 'Linux').

**Regarding Claims 4 and 14:** The rejections of claims 3 and 13 are incorporated respectively; further Rubini discloses the device driver executes an application program interface (API) exported from the kernel (1.2 Splitting the Linux Kernel 'The Linux kernel offers support for ... device drivers').

**Regarding Claim 5:** The rejection of claim 4 is incorporated; further Rubini discloses compiling the device driver into an object file prior to distribution (1.6 License Terms 'If you write a module ... you are allowed to distribute it in binary form').

**Regarding Claims 6 and 15:** The rejection of claims 5 and 14 are incorporated, respectively; further Rubini discloses obtaining the version identification data from the

operating system (2.2.1 Version Dependency 'kernels define the symbol for you') and generating a version object file that includes the version identification data (2.2 Compiling and Loading 'The following *Makefile* ... builds a module').

Note that 'building a module' from the included 'version.h' (2.2 Compiling and Loading 'VER=...version.h') file necessarily includes the step of compiling the 'version.h' file into object code.

**Regarding Claims 7:** The rejection of claim 6 is incorporated; further Rubini discloses linking the version object file and the device driver (2.2 Compiling and Loading 'The following *Makefile* ... builds a module').

Note that 'building a module' from the included 'version.h' file necessarily includes the step of compiling the 'version.h' (2.2 Compiling and Loading 'VER=...version.h') file into object code and linking it to the rest of the module.

**Regarding Claims 8 and 17:** The rejections of claims 7 and 15 are incorporated, respectively; further Rubini discloses further comprising obtaining a kernel specific address of a module list and passing the address to the driver (2.2 Compiling and Loading 'links any unresolved symbol in the module to the symbol table of the running kernel').

**Regarding Claim 9:** The rejection of claim 2 is incorporated; further, Rubini discloses the device driver is one of a printer driver, a serial port device driver, and Ethernet device driver, and a disk driver device driver (1.3. Classes of Devices and Modules 'A block device is ... a disk').

**Regarding Claim 18:** The rejection of claim 17 is incorporated; further, Rubini discloses the device driver retrieves a module list export head and imports the required application program interfaces (APIs) ignoring the version identification data (2.2.1 Version Dependency '#define \_\_NO\_VERSION\_\_ ... #include <linux/version.h>').

**Regarding Claim 19:** The rejection of claim 13 is incorporated; further Rubini discloses the device driver is dynamically loaded in a Linux kernel (1.2 Splitting the Kernel 'Each module is ... dynamically linked to the running kernel').

**Regarding Claim 20:** The rejection of claim 11 is incorporated; further Rubini discloses an installation module forms part of the device driver (2.2 Compiling and Loading 'The following *Makefile* ... builds a module'; 1.2 Splitting the Kernel 'Each module is ... dynamically linked to the running kernel').

### ***Conclusion***

In light of the new grounds of rejection **this action is made NON-FINAL.**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Mitchell whose telephone number is (571) 272-3728. The examiner can normally be reached on Monday-Thursday and alternate Fridays 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2193

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jason Mitchell  
4/26/06



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